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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,351	11/19/2003	Janet B. Davis	7784-000154DVA	8640
27572	7590	07/22/2004	EXAMINER	
HARNESS, DICKEY & PIERCE, P.L.C.			PIZIALI, ANDREW T	
P.O. BOX 828			ART UNIT	PAPER NUMBER
BLOOMFIELD HILLS, MI 48303			1771	

DATE MAILED: 07/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/717,351

Applicant(s)

DAVIS ET AL.

Examiner

Andrew T Piziali

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informality: This application has been filed as a division of Application No. 09/883,760, filed 6/18/2001, but this application discloses and claims subject matter not disclosed in the parent application. A later application for a distinct or independent invention, carved out of a pending application and disclosing and claiming only subject matter disclosed in an earlier or parent application is known as a divisional application or "division." The divisional application should set forth only that portion of the earlier disclosure which is germane to the invention as claimed in the divisional application.
2. The disclosure is objected to because of the following informality: The status of nonprovisional parent application (whether patented or abandoned) should be included. If the parent application has become a patent, the expression "now Patent No. ____" should follow the filing date of the parent application. If a parent application has become abandoned, the expression "now abandoned" should follow the filing date of the parent application.
3. The disclosure is objected to because of the following informality: In paragraph [0016] the specification asks questions.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 14 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 14 and 22 claim that the metal further comprises lanthanum,

Art Unit: 1771

cerium, yttrium, or combinations thereof, but the claims from which they depend (claims 8 and 15, respectively) do not initially limit the metal. Clarification is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-4, 6-10 and 12-14 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 5,665,463 to Morgan et al. (hereinafter referred to as Morgan).

Regarding claims 1-4, 6-10 and 12-14, Morgan discloses an insulating blanket having high temperature stability comprising a ceramic fabric including ceramic fibers and a coating on the fibers of a first ceramic material selected from the group consisting of monazites and xenotimes and having a stoichiometric ratio between a metal of the first ceramic material and a phosphate of the first ceramic material of about 1:1 (see entire document including column 1, lines 18-21, column 2, line 35 through column 3, line 4, column 4, lines 12-35, and column 8, line 6 through column 9, line 34).

Regarding claims 2 and 14, Morgan discloses that the metal may comprise lanthanum, cerium, yttrium, or combinations thereof (column 3, lines 36-64).

Regarding claims 3-4 and 12-13, Morgan discloses that the coating may comprise an inert powder such as Al₂O₃, zirconia, YAG, mullite, or compositions thereof (column 3, lines 36-58).

Regarding claims 6-7 and 9-10, Morgan discloses that the monazite or xenotime may be synthesized by forming an aqueous solution comprising a lanthanum salt (such as lanthanum

Art Unit: 1771

nitrate) and a phosphate (column 8, lines 6-60), but Morgan does not specifically mention synthesizing the monazite or xenotime by the currently claimed process. It is the examiner's position that the article of the applied prior art is identical to or only slightly different than the claimed article. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the applicant to show obvious difference between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289 (Fed. Cir. 1983). The applied prior art either anticipated or strongly suggested the claimed subject matter. It is noted that if the applicant intends to rely on Examples in the specification or in a submitted declaration to show non-obviousness, the applicant should clearly state how the Examples of the present invention are commensurate in scope with the claims and how the Comparative Examples are commensurate in scope with the applied prior art.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1771

9. Claims 5 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,665,463 to Morgan as applied to claims 1-4, 6-10 and 12-14 above, and further in view of USPN 4,732,878 to Everitt et al. (hereinafter referred to as Everitt).

Morgan discloses that the fibers may be ceramic (column 4, lines 12-35), but does not mention the use of ceramic fibers with a SiC additive. Everitt discloses that it is known in the art to use ceramic fibers with a SiC additive to increase emissivity and to improve the retention of carbon in an oxidative atmosphere, which improves physical properties (column 6, line 12 through column 7, line 2). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a SiC additive, as taught by Everitt, because the SiC additive increases emissivity and improves the retention of carbon in an oxidative atmosphere, which improves physical properties.

10. Claims 15-18 and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,665,463 to Morgan as applied to claims 1-4, 6-10 and 12-14 above, and further in view of Applicant's Disclosure.

Regarding claims 15-18 and 20-22, Morgan discloses that the insulating blanket may be used as a thermal protection blanket (column 4, lines 12-35), but does not specifically mention use of the blanket on a body. Morgan is silent with regards to specific bodies, therefore, it would have been necessary and thus obvious to look to the prior art for conventional bodies requiring a thermal protection blanket. The current applicant provides this conventional teaching showing that it is known in the art to use a thermal protection blanket for reentry vehicles, such as the Space Shuttle (see [0003] and [0004]). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to place the thermal protection

Art Unit: 1771

blanket of Morgan on a reentry vehicle, such as the Space Shuttle, motivated by the expectation of successfully practicing the invention of Morgan.

Regarding claims 17-18, Morgan discloses that the monazite or xenotime may be synthesized by forming an aqueous solution comprising a lanthanum salt (such as lanthanum nitrate) and a phosphate (column 8, lines 6-60), but Morgan does not specifically mention synthesizing the monazite or xenotime by the currently claimed process. It is the examiner's position that the article of the applied prior art is identical to or only slightly different than the claimed article. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the applicant to show obvious difference between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289 (Fed. Cir. 1983). The applied prior art either anticipated or strongly suggested the claimed subject matter. It is noted that if the applicant intends to rely on Examples in the specification or in a submitted declaration to show non-obviousness, the applicant should clearly state how the Examples of the present invention are commensurate in scope with the claims and how the Comparative Examples are commensurate in scope with the applied prior art.

Regarding claims 20-21, Morgan discloses that the coating may comprise an inert powder such as Al_2O_3 , zirconia, YAG, mullite, or compositions thereof (column 3, lines 36-58).

Art Unit: 1771

Regarding claim 22, Morgan discloses that the metal may comprise lanthanum, cerium, yttrium, or combinations thereof (column 3, lines 36-64).

11. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,665,463 to Morgan in view of Applicant's Disclosure as applied to claims 15-18 and 20-22 above, and further in view of USPN 4,732,878 to Everitt.

Morgan discloses that the fibers may be ceramic (column 4, lines 12-35), but does not mention the use of ceramic fibers with a SiC additive. Everitt discloses that it is known in the art to use ceramic fibers with a SiC additive to increase emissivity and to improve the retention of carbon in an oxidative atmosphere, which improves physical properties (column 6, line 12 through column 7, line 2). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a SiC additive, as taught by Everitt, because the SiC additive increases emissivity and improves the retention of carbon in an oxidative atmosphere, which improves physical properties.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T Piziali whose telephone number is (571) 272-1541. The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1771

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

atp

gtd 7/14/04
ANDREW T. PIZALI
PATENT EXAMINER

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